

**CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT**

**Supreme Corporation
16500 County Road 38
Goshen, Indiana 46528**

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP-039-9080-00103	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

TABLE OF CONTENTS

SECTION A	SOURCE SUMMARY	4
A.1	General Information	4
A.2	Emission Units and Pollution Control Equipment Summary	4
A.3	Part 70 Permit Applicability	4
SECTION B	GENERAL CONDITIONS	5
B.1	General Construction Conditions	5
B.2	Effective of the Permit [IC13-15-5-3]	5
B.3	Revocation of Permits [326 IAC 2-1-9(b)]	5
B.4	Permit Review Rules [326 IAC 2]	5
B.5	First Time Operation Permit [326 IAC 2-1-4]	5
B.6	General Operation Conditions	6
B.7	Preventive Maintenance Plan [326 IAC 1-6-3]	6
B.8	Transfer of Permit [326 IAC 2-1-6]	6
B.9	Permit Revocation [326 IAC 2-1-9]	7
B.10	Availability of Permit [326 IAC 2-1-3(l)]	7
SECTION C	SOURCE OPERATION CONDITIONS	8
	Emission Limitations and Standards	
C.1	PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]	8
C.2	Opacity [326 IAC 5-1]	8
C.3	Open Burning [326 IAC 4-1][IC 13-17-9]	8
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	8
C.5	Fugitive Dust Emissions [326 IAC 6-4]	8
C.6	Operation of Equipment	8
C.7	Asbestos Abatement Projects - Accreditation [326 IAC 14-10] [326 IAC 18-1]	8
	Compliance Monitoring Requirements	
C.8	Compliance Monitoring	9
C.9	Maintenance of Monitoring Equipment	9
C.10	Monitoring Methods [326 IAC 3]	9
C.11	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18-1] [40 CFR 61.140]	9
	Record Keeping and Reporting Requirements	
C.12	Annual Emission Reporting [326 IAC 2-6]	10
C.13	Monitoring Data Availability	11
C.14	General Record Keeping Requirements	11
	Stratospheric Ozone Protection	
C.15	Compliance with 40 CFR 82 and 326 IAC 22-1	12
SECTION D.1	FACILITY OPERATION CONDITIONS	
	Fleet Assembly Line	13

Emission Limitations and Standards

D.1.1 Volatile Organic Compounds [326 IAC 2-1-3(i)(8)] 13
D.1.2 PM Process Operation [326 IAC 6-3] 13
D.1.3 PM Overspray Surface Coating [326 IAC 6-3] 14

Compliance Determination

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3] 14
D.1.5 Testing Requirements 14
D.1.6 Emission Minimization 14

Record Keeping and Reporting Requirements

D.1.7 Record Keeping Requirements 14

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM), and presented in the permit application.

A.1 General Information

The Permittee owns and operates a Fleet Assembly plant.

Responsible Official: Christy Miller
Source Address: 16500 County Road 38, Goshen, Indiana 46528
Mailing Address: P. O. Box 463, Goshen, Indiana 46526
SIC Code: 3713
County Location: Elkhart
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under PSD Rules

A.2 Emission Units and Pollution Control Equipment Summary

This permit involves the relocation of the Fleet Assembly Line from the "A" building to the new plant identified as the "R" building, and the construction of the following equipment. The fleet assembly plant is capable of producing 28 units per day. This plant involves caulking, woodflooring assembly, welding and lacquer thinning using the following equipment:

- (1) Truck body undercoat system, which is rated at 3.1 units per hour, and is equipped with an airless gun;
- (2) Three (3) stick welding stations, which are capable of using 6 pounds per hour of welding stick;
- (3) Four (4) torch Oxyacetylene Plasma cutting, which has a cutting rate of 20 inches per minute;
- (4) Twenty two (22) radiant heaters, each has a heat input capacity of 100,000 British thermal Units per hour (Btu/hr);
- (5) Woodworking, which has a capacity of 18 boards per unit, consisting of one (1) horizontal table saw, one (1) cut-off saw, one (1) radial arm saw, and one (1) band saw;

An existing small internal drum cyclone/baghouse free standing unit will be used to collect the sawdust from this process, and
- (6) Eight (8) Metal Inert Gas (MIG) welding stations, which are capable of using 1080 pounds per hour of welding wire per station.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source will be required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22).

SECTION B GENERAL CONSTRUCTION AND OPERATION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

Construction Conditions [326 IAC 2-1-3.4]

B.1 General Construction Conditions

- (a) The data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
- (b) This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1-9(b)]

Pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.4 Permit Review Rules [326 IAC 2]

Notwithstanding Construction Condition No. B.5, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.5 First Time Operation Permit [326 IAC 2-1-4]

This document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).
- (e) The Permittee by itself is subject to the requirements of Part 70 permit. Supreme Corporation has submitted their Part 70 application (T-039-6046-00103) on June 3, 1996.

Master Fab, Inc. is also subject to Part 70 permit requirements and has submitted their Part 70 application (T039-7117-00001). The facilities in this application shall be incorporated in the Part 70 permit application.

Operation Conditions

B.6 General Operation Conditions

- (a) The data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
- (b) The Permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC13-17) and the rules promulgated thereunder.

B.7. Preventive Maintenance Plan [326 IAC 1-6-3]

Pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:

- (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
- (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
- (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

B.8 Transfer of Permit [326 IAC 2-1-6]

Pursuant to 326 IAC 2-1-6 (Transfer of Permits):

- (a) In the event that ownership of this trucks, buses, step vans, refrigerator body lines, and armored trucks body production plant is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
- (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
- (c) The OAM shall reserve the right to issue a new permit.

B.9 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

B.10 Availability of Permit [326 IAC 2-1-3(I)]

Pursuant to 326 IAC 2-1-3(I), the Permittee shall maintain the applicable permit on the premises of the source and shall make this permit available for inspection by the IDEM, or other public official having jurisdiction.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitation and Standards

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

The total potential emissions of Particulate Matter (PM) or PM10 from this fleet assembly line are less than 25 tons per year, and 15 tons per year respectively. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

C.2 Opacity Limitations [326 IAC 5-1-2]

Pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:

- (a) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
- (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2][326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment

All air pollution control equipment listed in this permit shall be in placed or operated at all times that the emission units vented to the control equipment are in operation, as described in Section D of this permit.

C.7 Asbestos Abatement Projects - Accreditation [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

Prior to the commencement of any demolition or renovation activities, the Permittee shall use an Indiana accredited asbestos inspector to inspect thoroughly the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable asbestos containing material. The requirement that the inspector be accredited is federally enforceable.

Compliance Monitoring Requirements

C.8 Compliance Monitoring

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee shall notify:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, no more than ninety (90) days after receipt of this permit, with full justification of the reasons for the inability to meet this date and a schedule which it expects to meet. If a denial of the request is not received before the monitoring is fully implemented, the schedule shall be deemed approved.

C.9 Maintenance of Monitoring Equipment

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.10 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the requirements of this permit shall be performed, according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.11 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

- (2) If there is a change in the following:
 - (A) asbestos removal or demolition start date;
 - (B) removal or demolition contractor; or
- (3) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Record Keeping and Reporting Requirements

C.12 Annual Emission Reporting [326 IAC 2-6]

That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30.

C.13 Monitoring Data Availability

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing. All observations, sampling, maintenance procedures, and record

keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.14 General Record Keeping Requirements

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location and available within one (1) hour upon verbal request of an IDEM, OAM, representative, for a minimum of three (3) years. They may be stored elsewhere for the remaining two (2) years providing they are made available within thirty (30) days after written request.

The source can request for a longer time frame than the one (1) hour availability of these records, provided a justification is made for such request.

- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;

- (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

Stratospheric Ozone Protection

C.15 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY CONDITIONS

- (1) Truck body undercoat system, which is rated at 3.1 units per hour, and is equipped with an airless gun;
- (2) Three (3) stick welding stations, which are capable of using 6 pounds per hour of welding stick;
- (3) Four (4) torch Oxyacetylene Plasma cutting, which has a cutting rate of 20 inches per minute;
- (4) Twenty two (22) radiant heaters, each has a heat input capacity of 100,000 British thermal Units per hour (Btu/hr);
- (5) Woodworking, which has a capacity of 18 boards per unit, consisting of one (1) horizontal table saw, one (1) cut-off saw, one (1) radial arm saw, and one (1) band saw;

 An existing small internal drum cyclone/baghouse free standing unit will be used to collect the sawdust from this process, and
- (6) Eight (8) Metal Inert Gas (MIG) welding stations, which are capable of using 1080 pounds per hour of welding wire per station.

Emissions Limitation and Standards

D.1.1 Volatile Organic Compounds [326 IAC 2-1-3(i)(8)]

- (a) Any change or modification which may result to an actual VOC emissions of 15 pounds of VOC per day from the coatings used for the truck undercoating system in this permit shall require prior approval and shall be subject to the requirements of 326 IAC 8-2-9.
- (b) Any change or modification which may result to a potential VOC emissions of 25 tons per year from the caulking operation in this permit shall require prior approval.

D.1.2 PM Process Operation [326 IAC 6-3]:

Pursuant to 326 IAC 6-3 (Process Operations), the following facilities shall not exceed the following PM emissions:

Facility	Process Weight	PM Allowable Emissions (lb/hr)
Woodworking	0.053	0.58
MIG Welding	0.002	0.01

The above PM emissions allowable are determined using the following equation:

$$E = 4.10 P^{0.67}$$

Where:

E = PM allowable emissions in pounds per hour

P = Process weight rate in tons per hour

D.1.3 PM Overspray Surface Coating [326 IAC 6]

Pursuant to 326 IAC 6-3 (Process Operations), the truck undercoating system shall comply with 326 IAC 6-3-2(c) using the following equation:

$$E = 4.10P^{0.67}$$

where: E = rate of emission in pounds per hour,
P = process weight in tons per hour, if
P is equal to or less than 60,000 lbs/hr (30 tons/hr)

or

$$E = 55.0P^{0.11} - 40$$

where: E = rate of emission in pounds per hour,
P = process weight in tons per hour, if
P is greater than 60,000 lbs/hr (30 tons/hr).

Compliance Determination Requirements

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

D.1.5 Testing Requirements

Testing of this facility is not required by this permit. However, if testing is required, compliance with the VOC limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility.

D.1.6 Emission Minimization

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Record Keeping and Reporting Requirements

D.1.7 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.1.
- (1) The amount of VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The volume weighted VOC content of the coatings used for each calendar day;

- (4) The cleanup solvent usage for each month;
 - (5) The total VOC usage for each calendar day and month;
 - (6) The weight of VOC emitted for each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**Indiana Department of Environmental Management (IDEM)
Office of Air Management**

Technical Support Document (TSD) for New Construction and Operation

Source Background and Description

Source Name:	Supreme Corporation
Source Location:	16500 County Road 38, Goshen, Indiana 46528
County:	Elkhart
Construction Permit No.:	039-9080-00103
SIC Code:	3713
Permit Reviewer:	Aida De Guzman

The Office of Air Management (OAM) has reviewed an application from Supreme Corporation relating to the relocation of the unpermitted Fleet Assembly Line from Plant 6 to the new Plant 9, and the construction of new equipment. This plant is capable of producing 28 units per day. This plant involves caulking, woodflooring assembly, welding and lacquer thinning using the following equipment:

Unpermitted Emission Units and Pollution Control

The source also consists of the following unpermitted facilities/units:

- (1) Truck body undercoat system, which is rated at 3.1 units per hour, and is equipped with an airless gun,
- (2) Three (3) stick welding stations, which are capable of using 6 pounds per hour of welding stick, and
- (3) Four (4) torch Oxyacetylene Plasma cutting, which has a cutting rate of 20 inches per minute.

The above facilities were constructed and operated without the proper (CWOP/OWOP) approval. However, this issue of CWOP/OWOP has been settled through an Agreed Order, Cause No. A -2234 (a) & (b), issued on May 5, 1994.

New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following equipment:

- (4) Twenty two (22) radiant heaters, each has a heat input capacity of 100,000 British thermal Units per hour (Btu/hr),
- (5) Woodworking, which has a capacity of 18 boards per unit, consisting of one (1) horizontal table saw, one (1) cut-off saw, one (1) radial arm saw, and one (1) band saw.

An existing small internal drum cyclone/baghouse free standing unit will be used to collect the sawdust from this process.

- (6) Eight (8) Metal Inert Gas (MIG) welding stations, which are capable of using 1080 pounds per hour of welding wire per station,

Source Definition

Master Fab, Inc. which is located at 16618 Maple City Drive, Goshen, Indiana 46526 is a fiberglass parts manufacturing plant. It is located about a mile away from Supreme Corporation. Master Fab, Inc. and Supreme Corporation have the same owner. Master Fab, Inc. is supplying Supreme Corporation with parts (46%, 47% and 48% for the last 3 years). These plants have different SIC codes. A determination is still being made if these two sources are considered one source. Even if a decision is made that these two plants are considered one source, the level of approval for Supreme Corporation in this application will not trigger any PSD rule applicability.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 14, 1997, with series of additional information received on December 31, 1997, January 30, 1998, February 2 and 6, 1998.

Emissions Calculations

- (1) Natural Gas Combustion Emissions: See page 1 of 2 TSD Appendix A
- (2) Truck Undercoating Operation: See page 2 of 2 TSD Appendix A

Potential PM emissions = 64.02 tons/year

The undercoating system is not vented into the atmosphere. The building acts a control unit at 90% efficiency to control the PM overspray into the atmosphere.

Controlled PM emissions = 6.4 tons/year

- (3) Air Toxics:

Table 1

Air Toxics	% HAP By Weight	Maximum Throughput (lb/day)	Rate of Emissions (ton/yr)
Ethylbenzene	7%	11.2 lb Pro-2000/day	0.14
Methanol	10%	36.6 lb of thinner/day	0.7
Methyl Ethyl Ketone	10%	36.6 lb of thinner/day	0.7
Methyl Isobutyl Ketone	10%	36.6 lb of thinner/day	0.7
Toluene	60%	36.6 lb of thinner/day	4.0

Xylene	3%	11.2 lb Purflex/hr	0.1
	30%	11.2 lb/Pro-2000/hr	0.61
Total Single HAP			4.0
Total Combined HAP			6.95

Methodology: HAP Emissions, ton/yr = lb/day * % HAP * 365 day/yr * ton/2000 lb

(4) Welding Emissions:

Using default emission factor in the "SARA 313 Reporting Guide" for the MIG welding, since there is emission factor in the FIRE Version 3 for the electrode used. The weight of a 2170 inches of welding wire is equivalent to 1 pound.

$$\begin{aligned} \text{MIG Throughput} &= 1080 \text{ in/hr} * \text{lb}/2170 \text{ in} \\ &= 0.48 \text{ lb/hr} \end{aligned}$$

Type of Welding	Throughput (lb/hr)	# of Station	Emission Factor (lb/lb)	PM Emissions (ton/yr)	PM10 Emissions (ton/yr)
MIG	0.48	8	0.0055	0.1	-
Stick	2	3	0.0384	-	1.0
Total				0.1	1.0

Methodology:

$$\text{Emissions, ton/yr} = \text{throughput, lb/hr} * \text{no. of station} * \text{ef, lb/lb} * 8760 \text{ hr/yr} * \text{ton}/2000 \text{ lb}$$

(5) Oxyacetylene Cutting: "Using SARA 313 Reporting Guide"

$$\begin{aligned} \text{Throughput} &= 20 \text{ in/min} * 1 \text{ in/in} * 60 \text{ min/hr} * 8760 \text{ hr/yr} * 1/1000 \\ &= 10512 \text{ Kin/yr} \end{aligned}$$

$$\begin{aligned} \text{PM10=PM} &= 10512 \text{ Kin/yr} * 0.1622 \text{ lb/Kin} * \text{ton}/2000 \text{ lb} \\ &= 0.85 \text{ ton/yr} \end{aligned}$$

(6) Woodworking:

$$\begin{aligned} \text{Capacity} &= 18 \text{ pcs of plyboards/truck floor} * 28 \text{ truck floors/day} \\ &= 504 \text{ plywood/day} \end{aligned}$$

This operation involves only cutting of these boards (one cut across each board). The PM emissions from this operation is negligible, and is not vented into the atmosphere.

(7) Caulking:

Caulked/Truck Type	Maximum Amount (lb/day)	Density (lb/gal)	% VOC By Weight	VOC Emissions (ton/yr)
Purflex/Ryder Trucks	11.20	0.58	4.3	0.1
Pro-2000/Budget Trucks	11.20	2.4	3.0	0.1
TOTAL				0.2

Methodology:

$$\text{VOC Emissions, ton/yr} = \text{lb/day} * \% \text{ VOC} * 365 \text{ day/yr} * \text{ton}/2000 \text{ lb}$$

SUMMARY OF EMISSIONS (TONS/YEAR)							
Pollutant	Natural Gas Combustion	Truck Undercoating	Welding	Oxyacetylene Cutting	Woodworking	Caulking	Total Uncontrolled Emissions
PM	0.1	64.02	0.1	0.85	Negligible	0.0	65.1
PM10	0.1	64.02	1.0	0.85	Negligible	0.0	66.0
VOC	0.1	6.68	0.0	0.0	0.0	0.2	7.0
NOx	1.0	0.0	0.0	0.0	0.0	0.0	1.0
SO ₂	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CO	0.2	0.0	0.0	0.0	0.0	0.0	0.2

Total Potential and Allowable Emissions

Pollutant	Allowable Emissions		Potential Emissions	
	(lb/day)	(ton/yr)	(lb/day)	(ton/yr)
PM	356.7	65.1	356.7	65.1
PM10	361.6	66.0	361.6	66.0
SO ₂	0.0	0.0	0.0	0.0
VOC	38.4	7.0	38.4	7.0
CO	1.1	0.2	1.1	0.2
NOx	5.5	1.0	5.5	1.0
Single HAP	21.9	4.0	21.9	4.0
Combination of HAPs	38.1	6.95	38.1	6.95

- (a) Allowable emissions are determined from the applicability of rule 326 IAC 6-3. This rule mandates a PM allowable emissions for the truck undercoating system using the following equation:

$$E = 4.10 P^{0.67}$$

Where:

E = PM emissions allowable in pounds per hour
P = Process weight rate in ton per hour

The PM allowable emissions for the following facilities are also determined using the above equation:

(1) Woodworking:

$$\begin{aligned} E &= 4.10 P^{0.67} \\ &= 4.10 (0.053)^{0.67} \\ &= 0.58 \text{ lb/hr} \\ &= 2.5 \text{ ton/yr} \end{aligned}$$

Supreme Corp. is using 504 pieces/day of 12" x 11" x 1 3/8" plywood board

$$\begin{aligned} \text{Bd foot} &= 1 \text{ ft} * 1 \text{ ft} * 1 \text{ in} \\ &= 0.083 \text{ ft}^3 \end{aligned}$$

$$\frac{1 \frac{3}{8} \text{''} \times 12 \text{''} \times 11 \text{''}}{12 \quad 12 \quad 12} = 0.1008 \text{ ft}^3$$

$$\frac{0.1008}{0.083} = 1.21 \text{ bd ft}$$

$$504 \text{ pieces/day} * (1.21) = 612 \text{ bd ft}$$

$$612 \text{ bd ft/day} * 4.2 \text{ lb/bd ft} * \text{ton}/2000 \text{ lb} * \text{day}/24 \text{ hr} = 0.054 \text{ ton/hr}$$

(2) MIG Welding:

$$\begin{aligned} E &= 4.10 (0.002)^{0.67} \\ &= 0.01 \text{ lb/hr} \\ &= 0.04 \text{ ton/yr} \end{aligned}$$

- (b) The potential emissions before control are equivalent to the allowable emissions, therefore, the potential emissions or allowable emissions before control are used for the permitting determination.
- (c) Allowable emissions (as defined in the Indiana Rule) of particulate matter (PM) emissions are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, a construction permit is required.
- (d) Allowable emissions (as defined in the Indiana Rule) of a single hazardous air pollutant (HAP) are less than 10 tons per year and/or the allowable emissions of any combination of the HAPs are less than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, a construction permit is not required.

County Attainment Status

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (Nox) are precursors for the formation of ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Elkhart County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD Definition (based on the approvals issued to the source):

Approval No.	Date Issued	Limit
CP-039-00103 Grandfathered from Construction Permit	7/25/91	Unlimited - Assume 250 tons of VOC per year, since the source is major after the issuance of this permit.
Registration CP-039-3531	3/16/94	24 tons of PM per year
CP-039-3362	2/21/95	39 tons of VOC per year
CP-039-7321	7/31/97	39 tons of VOC per year

- (a) This existing source is a major stationary source because VOC an attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)
Proposed Modification	7.5	8.4	0.0	7.0	0.2	1.0
PSD Significant Level	25	15	40	40	100	40

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

- (a) Supreme Corporation by itself is subject to the Part 70 requirements and has submitted their Part 70 application (T039-6046-00103) on June 3, 1996.
- (b) Master Fab, Inc. is also subject to the Part 70 requirements and has submitted their Part 70 application (T039-7117-00001) on November 8, 1996.

The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application. Since both sources are independently subject to Title V program, therefore, the review of this particular application will not be affected by the outcome of the one source determination.

Federal Rule Applicability

- (1) New Source Performance Standards:
40 CFR Part 60.390, Subpart MM - Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations: This rule is not applicable to this facility because this facility involves only undercoating of trucks body and does not involve exterior surface coating of light duty trucks, that includes hoods fenders, cargo boxes, doors, and grill opening panels.
- (2) There are no other New Source Performance Standards (326 IAC 12) and 40 CFR Part 63 applicable to this facility.
- (3) National Emissions Standards for hazardous Air Pollutants:
There are no NESHAPs, 40 CFR Part 63 applicable to this facility.

State Rule Applicability

- (1) 326 IAC 2-6 (Emission Reporting)
This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits 10 tons per year or more of VOC and is located in Elkhart County. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.
- (2) 326 IAC 6-3 (Process Weight Rate, PM Allowable Emissions)
This rule mandates an allowable PM emissions for the the following facilities using the following equation:

- (a) Undercoating System:

$$E = 4.10 P^{0.67}$$

The undercoating system is in compliance with this rule, because it is not vented into the atmosphere, and the building acts as a control unit.

(b) Woodworking:

$$\begin{aligned} E &= 4.10 P^{0.67} \\ &= 4.10 (0.053)^{0.67} \\ &= 0.58 \text{ lb/hr} \\ &= 2.5 \text{ ton/yr} \end{aligned}$$

Supreme Corp. is using 504 pieces/day of 12" x 11" x 1 3/8" plywood board

Bd foot = 1 ft * 1 ft * 1 in

$$= 0.083 \text{ ft}^3$$

$$\frac{1 \frac{3}{8}}{12} \times \frac{12}{12} \times \frac{11}{12} = 0.1008 \text{ ft}^3$$

$$\frac{0.1008}{0.083} = 1.21 \text{ bd ft}$$

$$504 \text{ pieces/day} * (1.21) = 612 \text{ bd ft}$$

$$612 \text{ bd ft/day} * 4.2 \text{ lb/bd ft} * \text{ton}/2000 \text{ lb} * \text{day}/24 \text{ hr} = 0.054 \text{ ton/hr}$$

This facility is in compliance with this rule, because the PM emission is negligible. PM is only emitted when cutting these boards one cut across, and is not vented into the atmosphere. The building acts as a control unit

(c) MIG Welding:

$$\begin{aligned} E &= 4.10 (0.002)^{0.67} \\ &= 0.01 \text{ lb/hr} \\ &= 0.04 \text{ ton/yr} \end{aligned}$$

This facility is in compliance with this rule, because this operation is not vented into the atmosphere. The building acts as a control unit.

- (3) 326 IAC 8-2-2 (Surface Coating Emissions Limitations for Automobile and Light Duty Trucks)
This rule applies to surface coating of automobiles, and light duty trucks' bodies, hoods, fenders, cargo boxes doors, and grill opening panels, which applies primer, top coat and final repair application.

This rule does not apply to this facility because it not a light duty truck assembly plant and it only involves undercoating of trucks.

- (4) 326 IAC 8-2-9 (Organic Compounds)
This rule is not applicable to the truck undercoating system, because there is no VOC emissions coming from this process. See spreadsheet 2 of 2 TSD Appendix A. VOC emissions mostly come from the caulking operation.

- (5) 326 IAC 8-1-6: (General Reduction Requirements)
The caulking operation that is applied to plastic substrate is not subject to this rule, because its VOC potential emissions are less than 25 tons per year.

- (6) There are no other 326 IAC 8 rule that apply .

- (7) 326 IAC 2-1-3.4 (New Source Air Toxics Control)
This rule is not applicable, because the source is not major for HAPs emissions.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This modification will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.
- (b) See page 2 of 9 of this TSD for detailed air toxic calculations.

Conclusion

The construction of this fleet assembly line will be subject to the conditions of the attached proposed **Construction Permit No. CP 039-9080, Pit ID No. 039-00103.**

Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for New Construction and Operation

Source Name: Supreme Corporation
 Source Location: 16500 County Road 38, Goshen, Indiana 46528
 County: Elkhart
 Construction Permit No.: CP-039-9080-00103
 SIC Code: 3713
 Permit Reviewer: Aida De Guzman

On February 20, 1998, the Office of Air Management (OAM) had a notice published in the Goshen News, Goshen, Indiana, stating that Supreme Corporation had applied for a construction permit to relocate the Fleet Assembly Line from the "A" building to the new plant identified as "R" building and the construction of various natural gas-fired heaters, and woodworking operation. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On March 12, 1998, Supreme Corporation submitted comments on the proposed construction permit. The summary of the comments and corresponding responses is as follows (changes are bolded and strikeout for emphasis):

Comment 1: Section A.2: Emission Units and Pollution Control Summary, of the proposed construction permit should be amended to read as follows:

"This permit involves the relocation of the Fleet Assembly Line from the A building to the new plant identified as R building, and the construction of the following equipment".

Response 1: Section A.2: Emission Units and Pollution Control Summary, was amended in the final construction permit to read as follows:

This permit involves the relocation of the Fleet Assembly Line from the ~~Plant 6 to the new Plant 9~~ **"A" building to the new plant identified as "R" building**, and the construction of the following equipment. The fleet assembly plant is capable of producing 28 units per day. This plant involves caulking, woodflooring assembly, welding and lacquer thinning using the following equipment:

Comment 2: The source records are kept on a disk, some reports could be maintained by legal counsel, others may be in storage boxes, in storage trailers on site but not assessable within one hour. Therefore, we request that Section C.14 General Record Keeping Requirements should be amended to read as follows:

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location and available within five (5) working days upon verbal request of an IDEM, OAM, representative, for a minimum of three (3) years. They may be stored elsewhere for the remaining two (2) years providing they are made available within thirty (30) days after written request.

Response 2: Condition C.14 General Record Keeping Requirements require that records necessary to document compliance be kept at the source for a period of three (3) years, and then may be stored elsewhere for the next two (2) years provided the records can be available within thirty (30) days after written request. Because the most recent three years worth of records must be kept at the source, it is reasonable to assume that such records can be produced within a short time frame when OAM staff requests such data. Based on OAM's experience, reasonable requests for compliance related records can be made available within one hour. However, the source can request for a time frame longer than one (1) hour, provided a justification is made for such request. This issue has been discussed and verified with the OAM inspector assigned to the source. Since the source is a Title V source, this requirement will also apply. 326 IAC 2-7-6(2) states that the Permittee shall allow access to records when the inspector arrives at the source. The following statement will be added after section (a) of this condition: **"The source can request for a longer time frame than the one (1) hour availability of these records, provided a justification is made for such request"**.

Comment 3: Please cite the state rule that mandates weekly inspections for overspray emissions on the ground found in Section D.1.7 PM Overspray of the proposed construction permit.

Response 3: Since the undercoating operation is not vented into the atmosphere, the following proposed D.1.7 PM Overspray Monitoring condition will not be necessary, and will be deleted in the final permit:

~~D.1.7 PM Overspray Monitoring~~

~~(a) Weekly inspections shall be performed of the coating emissions from the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.~~

~~(b) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.~~

Proposed Condition D.1.8 Woodworking Monitoring originally written as follows will be deleted in the final permit, since the PM emissions from this operation is negligible:

~~D.1.8 Woodworking Monitoring~~

~~(a) good housekeeping and equipment maintenance procedures are implemented.~~

~~(b) no visible accumulation of particulate matter beyond the plant property line, and~~

~~(c) emissions do not violate 326 IAC 6-4 (Fugitive Dust Emissions).~~

Subsequent conditions have been renumbered accordingly.

**Appendix A: Emission Calculations
 Natural Gas Combustion Only
 MM Btu/hr 0.3 - < 10
 Commercial Boiler**

22 radiant heaters @ 0.1 mmBtu/hr

Company Name: Supreme Corporation
Address City IN Zip: 16500 Co. Rd 38, Goshen, IN 46528
CP: 039-9080
Pit ID: 039-00103
Reviewer: Aida de Guzman
Date: 12/11/97

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

2.2

19.3

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	12.0	12.0	0.6	100.0	5.3	21.0
Potential Emission in tons/yr	0.1	0.1	0.0	1.0	0.1	0.2

Methodology

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: uncontrolled = 100, Low Nox Burner = 17, Flue gas recirculation = 36

Emission Factors for CO: uncontrolled = 21, Low NOx Burner = 27, Flue gas recirculation = ND

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-03-006-03

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: Supreme Corporation
Address City IN ZIP: 16500 County Rd34, Gosport, IN 46528
CP: 039-9080
PK ID: 039-00703
Reviewer: Aida De Guzman
Date: 12/19/17

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/ln)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
Undercoating/Primer	9.4	0.00%	0.0%	0.0%	0.0%	0.00%	5.00000	3.110	0.00	0.00	0.00	0.00	0.00	64.02	ERR	90%
Lacquar Thinner	7.0	100.00%	0.0%	0.0%	0.0%	0.00%	0.07000	3.110	7.01	7.01	1.53	36.63	6.68	0.00	ERR	0%
State Potential Emissions											1.53	36.63	6.68	64.02		
Add worst case coating to all solvents																

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1 - Volume % water)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics) * Gal of Material (gal/ln) * Maximum (units/hr)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon Coating (lb/gal) * Gal of Material (gal/ln) * Maximum (units/hr) * (24 hrs/day)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon Coating (lb/gal) * Gal of Material (gal/ln) * Maximum (units/hr) * (8760 hrs/yr) * (1 ton/2000 lbs)
 Potential VOC Tons per Year = (units/hour) * (gal/ln) * (1 - Weight % Volatiles) * (1 - Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (units/hour) * (gal/ln) * (1 - Weight % Volatiles) * (1 - Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
 Pounds VOC per Gallon of Solids = (Density (lb/gal) * Weight % Organics) / (Volume % solids)
 Total = Worst Coating + Sum of all solvents used